ABSTRACT

Process for relaying IP application frames within an ATM network switch with distributed architecture

The process relates to the relaying of IP frames in the form of PDU application frames within an ATM switch with distributed architecture and egress storage comprising a management module and several ingress (7i...7k) and egress (7j) junctors having a routing emulation function ensuring IP frame routing between the users of various ELAN media and represented in each of these ELANs by its router LEC module, characterized in that it consists in offloading the frame relay function into the ATM layer of the junctors by examining the first cell of each PDU application frame arriving at an ingress junctor (7i...7k) so as to extract therefrom the IP address of the destination, by searching in a cache table (9i...9k) of the junctor for a pair (logical path, outbound direction) opposite the relevant IP address and opposite the ingress logical path and by using the translation obtained for all the cells of the PDU application frame, the cache table (9i...9k) being updated by virtue of the routing information originating from the routing emulation function residing in the management module (4).

A request to update the cache (9i...9k) is transmitted to the management module (4) if the sought-after IP address is not located thereat or if the information opposite this address is too old.

Applications: ATM communications networks.
Figure 4.